REMARKS

This Amendment is filed in response the election and restriction requirement dated September 16, 2005 wherein Examiner restricts claims 1-20 to four groups and requires election of one group.

Applicants elect, with traverse to prosecute Group III, claims 12-15. The claim 12 is amended to present an independent claim. Additionally, new claims 21-33 are added. All non-elected claims are canceled.

ELECTION/RESTRICTIONS REQUIREMENT

Restriction to one of the following inventions is required under 35 U.S.c. 121:

I. Claims 1-10, drawn to a method of treatment for pulmonary infections comprising preparing an aztreonam lysinate formulation and delivering said aztreonam lysinate dry powder or aerosolable solution to a patient's lungs, classified in class 514, subclass 562.

II. Claims 11, drawn to inhalable powder pharmaceutical compositions comprising aztreonam and lysine in a 1:1 molar ratio, classified in class 424, subclass 499.

III. Claims 12-15, drawn to a composition comprising an aztreonam lysinate in dry powder form made by a process of milling, spray drying, or particle precipitation of the aztreonam lysinate powder, classified in class 514, subclass 562.

IV. Claims 16-20, drawn to a process for the preparation of aztreonam lysinate, classified in class 514, subclass 562.

Examiner argues that the inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as product and process of use. The inventions can be shown to be distinct if either or both of the

following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the treatment of pulmonary infections can be affected through the use of penicillin, polymyxin B, streptomycin, vancomycin, and or other known anti-bacterial agents.

Applicants disagree. Examiner is wrong on two accounts. First, the group I concerns a method for treatment of pulmonary infections caused by, and no other than, **gram-negative bacteria**. The method necessarily involves delivery of the composition of the invention. Examiner states, erroneously, that treatment of pulmonary infection can be affected through the use of penicillin, polymyxin B, and other antibiotics. Examiner obviously does not distinguish between the gram-positive bacteria that can be treated with antibiotics listed by the Examiner, and gram-negative bacteria that do not respond to such treatment. This aspect has been discussed in great detail in the specification, pages 2-5, to which Examiner's attention is directed.

The invention concerns a method of treatment of pulmonary infections that cannot be treated with ordinary antibiotics as these infections are resistant to treatments with ordinary antibiotics but respond, as shown in the specification and examples, to the treatment with an aerosolized aztreonam lysinate according to the invention.

Groups I and II should be examined together and the restriction requirement should be withdrawn.

Examiner submits that inventions III and I are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP§ 806.05(h». In the instant

case the treatment of pulmonary infections can be affected through the use of penicillin, polymyxin B, streptomycin, vancomycin, and or other known anti-bacterial agents.

Applicants disagree. The same argument as advanced above is applicable here. Claims of Group III are directed to aztreonam lysinate dry powder having definite particle sizes, where said dry powder may be dissolved in a saline and its pH adjusted into stated values. Again, the method for treatment of pulmonary diseases caused by gram-negative bacteria according to the invention can be achieved only with aztreonam lysinate composition either of Group II or Group III.

The restriction is improper even more so that the classification and subclassification of groups I and III is the same, namely class 514 and subclass 562 and searching of this class and subclass would not place any additional burden on the Examiner. It is respectfully requested that the restriction is withdrawn.

Examiner argues that inventions I and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions correspond to a method of using a product (I) and a method of making said product (III). The method of making is independent of the method of using and vice versa. Both methods have different modes of operation and effects. Invention I is utilized by administration of aztreonam lysinate to a patient and results in the consumption of the product, whereas invention III results in the production of the product.

Applicants disagree. Here Examiner is mixing group III with IV. Only the group IV concerns production of aztreonam lysinate. On the other hand, this group (IV) is also classified in class 514, subclass 562 and thus it would not cause any burden on the Examiner to search and examine Groups I, III and IV together.

It is requested that Examiner withdraw his restriction requirement and examines all three groups in one application.

Examiner argues that inventions II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions correspond to two different products. The composition of invention II is derived from the product of the reaction between equimolar quantities of aztreonam and lysine, whereas the composition of invention III is a product-by-process having a mass medium average diameter from about 1 to about 5 μm.

Applicants disagree. The same arguments apply here as already stated above. The restriction should be withdrawn and all groups should be examined in one application.

Examiner argues that inventions IV and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(£)). In the instant case the product as claimed can be made by a process that utilizes HPLC or recrystallization as a purification step.

Applicants disagree. Examiner does not know that this can be done. Preparation of aztreonam lysinate is an intricate process and the normally used procedures are not always applicable. For example, Examiner's attention is directed to pages 20 and 21 of the specification to a statement: "According to the prior art, the crystalline form of alpha form of aztreonam is considered to be unstable and must be converted to the beta form by recrystallization from ethanol. Following this recrystallization step, the beta form is considered to be very stable. However, the re-crystallized aztreonam contains 1-2% of residual organic solvent, typically ethanol."

This clearly shows that the alpha form of aztreonam cannot be obtained by regular recrystallization and that when such recrystallization is used, the beta form of aztreonam contain residual

organic solvent and is thus not purified.

The restriction requirement should be withdrawn and all groups should be examined in the same application.

Examiner argues that inventions III and IV are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP §806.05(t)). In the instant case the product as claimed can be made by a process that utilizes HPLC or recrystallization as a purification step.

Applicants disagree. The same argument applies here as discussed above. Restriction is improper and should be withdrawn.

Examiner concludes that because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group III, restriction for examination purposes as indicated is proper.

The Examiner requires restriction between product and process claims and further states that where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. Process claims that depend from or otherwise include the limitations of the patentable product will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312. In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and

112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claims in light of In re Ochiai, In re Brouwer and 35 U.S.C. § 1 03(b)," 1184 O.G. 86 (March 26, 1996).

Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. Failure to do so may result in a loss of the right to rejoinder. Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Examiner further argues that Claim 1 is generic to a plurality of disclosed patentably distinct species comprising different physical forms of aztreonam lysinate, specifically, powders and aerosolable solutions. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, even though this requirement is traversed.

Applicants elect to prosecute, with traverse, aztreonam lysinate dry powders.

Claim 3 is generic to a plurality of disclosed patentably distinct species comprising *Burkholderia cepacia, Stenotrophomonas maltophilia, Alcaligenes xylosoxidans,* and multidrug resistant *Pseudomonas aeruginosa.* Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, even though this requirement is traversed. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 1 03(a) of the other

invention.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicants elect to prosecute, with traverse, species Burkholderia cepacia. Applicants traverse Examiner's election requirement on the basis that all these species are gram-negative bacteria that respond to treatment with aztreonam lysinate according to the invention.

Examiner is respectfully requested to withdraw his election of species requirement and to examine all four species as claimed.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Inventorship of all claims pending in the application remains the same.

SUMMARY

In response to the restriction and Election Requirement, Applicants elect, with traverse, to prosecute Group III, directed to claims 12-15. Claims 1-11 and 16-20 are cancelled. New claims 21-33 are added. Examiner is respectfully requested to withdraw the Restriction and to examine all claims currently pending.

Respectfully submitted,

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